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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,668	03/24/2004	Vincent J. Zimmer	INTEL/18683	4322

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HANLEY, FLIGHT & ZIMMERMAN, LLC
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CHICAGO, IL 60606

EXAMINER

WANG, MICHAEL

ART UNIT	PAPER NUMBER
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2115

MAIL DATE	DELIVERY MODE
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11/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/807,668

Applicant(s)

ZIMMER ET AL.

Examiner

Michael Wang

Art Unit

2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to applicant's response received on 3/06/2007.
2. Claims 1-40 are pending in this application.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merkin (U.S Patent Application No. 2004/0158701) herein refer to as Merkin in view of Engelbrecht et al. (U.S Patent No. 6601153 B1) herein refer to as Engelbrechi.

Merkin and Engelbrechi et al were cited as prior art reference in the last office action. Their teachings are hereby incorporated by reference to the extent that is applicable to the amended claims.

Referring to claim 1, Merkin teaches the invention, comprising:

initializing a subset of a memory [0041, the first memory group];

before loading an operating system, creating a memory descriptor [[0050] SRAT, static resource affinity table] for subsets of a remaining memory [the second memory group], the memory descriptor being accessible by the operating system

[[0050] lines 7 – 10, “[C]omputer system 10 may store information about the stored but not available memory 16”];

loading the operating system [0042];

initializing the subsets of the remaining memory identified in the memory descriptor during certain specific events [0031, lines 11 – 12]; and

creating a notification for the operating system to dynamically incorporate the subsets of the remaining memory [002, 0053].

Merkin initializes the second memory group during certain specific events.

However, Merkin does not detail the specific events. It is noted that the primary objective of Merkin is to reduce the boot up time. As such, an ordinary skill in the art would have readily recognized that the timing of the specific events should not have interfered with the loading of the operating system. Otherwise, it would defect the primary objective of Merkin.

Engelbrechi et al teaches another system for speeding up the initialization of a second memory group [memory pages to be zeroed out]. Specifically,

Engelbrechi et al initializes the second memory group during the idle time of the system thereby minimizing the adverse impact to the operation of the system.

“Because clearing a page may take many write cycles, it is unlikely that a processing stall or write idle will be lengthy enough to allow the entire page to be cleared at once. In one embodiment of the invention, the entire page will not be cleared where the stall or write idle time is shorter than that required to

clear the entire page, so that normal processing of the instruction stream is not delayed", col.9, lines 31 - 37.

It would have been obvious to one of ordinary skill in the art to combine the teachings of Merkin and Engelbrechi et al because they both direct to the problem of initializing a second memory group. Engelbrechi et al teaching of initializing the second memory group during the idling time of the system would allow Merkin to achieve its primary objective – reducing the boot up time. In the Merkin – Engelbrechi et al system, the second memory group would have been initializing during the idle time of the operating system¹.

Note that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 29 USPQ2d 1057 (Fed. Cir 1993)

Note claims 7, 11, 16, 22, 27, 29, 34 and 37 recite the corresponding limitations as set forth in claim 1, therefore, rejected under the same reasoning.

As to claims 2-6, 8-10, 12-15, 17-21, 23-26, 28, 30-33, 35-36 and 38-40, Merkin and Englebrecht teach the claimed limitations as set forth in the last office action.

Response to Amendment

5. Applicant's arguments filed on 03/06/2007 have been fully considered but they are not deemed to be persuasive.

¹ The second memory group address information is already made available to the operating system in the SRAT [0050]. The only idle time taught by Engelbrechi that is available to Merkin is the idling time of the operating system. More importantly, repeatedly interrupting the loading of the operating system would defect the primary objective of Merkin.

In the remarks, applicant argues that Merkin does not describe or suggest "1) before loading an operating system, creating a memory descriptor for subsets of a remaining memory.....2) the memory descriptor is accessible by the OS for initializing the subsets of the remaining memory....."

However, examiner disagrees with the applicant and respectfully traverses the applicant's argument based up on the detail discussions as set forth supra.

As per 1, Merkin teaches the memory descriptors are stored in SRAT [[0050 SRAT], static resource affinity table].

As per 2, Merkin teaches the memory descriptors are accessible by the operating system, [[0050] lines 7 – 10, "[C]omputer system 10 may store information about the stored but not available memory 16"];

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

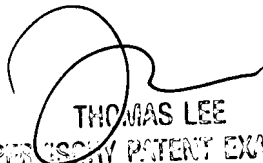
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Wang whose telephone number is (571)270-1633. The examiner can normally be reached on 8:30AM - 4:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on (571)272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael Wang
Examiner
Art Unit 2115


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